Technics

Compact Disc Player

SL-PG100

Operating Instructions

P PC

Before connecting, operating or adjusting this product, please read these instructions completely.

Thank you for purchasing the Compact Disc Player, SL-PG100.
For optimum performance and safety, please read these instructions carefully.

Table of Contents

Precautions ... 3
- **Safety** ... 3
- **Installation** ... 3
  - Environment ... 3
  - Placement ... 3
- **Maintenance** ... 3
- **Service** ... 3

Preparations ... 4
- **Supplied accessories** ... 4
- **Connections** ... 5

Front Panel Controls and Functions ... 6
- **Control section** ... 6
- **Display section** ... 7

Basic Operating Procedure for Disc Play ... 8

Sequential Play ... 9
- **To briefly interrupt play** ... 10
- **To stop play** ... 10

Program Play ... 11
- To enter the program ... 11
- To confirm the program ... 12
- To clear programmed tracks ... 13
- To clear programmed tracks during program play ... 13
- To cancel program play ... 13

Special Features ... 14
- **Search play (To search forward or backward)** ... 14
- **Skip play (To skip tracks)** ... 15
- **Time mode selection** ... 16
- **Time fade** ... 17
- **Automatic cueing** ... 18
- **Repeat play** ... 19
- **Random play** ... 19

Recording from Compact Discs ... 20
- **Automatic peak level search** ... 20
- **Automatic edit** ... 21
  - To select the recording time ... 22
  - For cassette decks with no synchro edit terminal ... 22
- **Manual editing** ... 23
- **Fade out function** ... 25
- **Link function** ... 26

Concerning Compact Discs ... 28
- **Handling precautions** ... 28
- **Storage precautions** ... 28

Technical Specifications ... 28

Troubleshooting Guide ... 29

Product Service ... 30
- **Product information** ... 30

Index ... 31

The model number and serial number of this product can be found on either the back or the bottom of the unit.
Please note them in the space provided below and retain this booklet as a permanent record of your purchase to aid identification in the event of theft.

MODEL NUMBER _____

SERIAL NUMBER _____

CAUTION:
TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Precautions

Before using this unit please read these operating instructions carefully. Take special care to follow the warnings indicated on the unit itself as well as the safety suggestions listed below.
Afterwards keep them handy for future reference.

Safety

1. **Power Source** -- The unit should be connected to power supply only of the type described in the operating instructions or as marked on the unit.
2. **Polarization** -- If the unit is equipped with a polarized AC power plug (a plug having one blade wider than the other), that plug will fit into the AC outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
3. **Power Cord Protection** -- AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Never take hold of the plug or cord if your hand is wet, and always grasp the plug body when connecting or disconnecting it.
4. **Nonuse Periods** -- When the unit is not used, turn the power off. When left unused for a long period of time, the unit should be unplugged from the household AC outlet.

Installation

Environment

1. **Water and Moisture** -- Do not use this unit near water—for example, near a bathtub, washbowl, swimming pool, or the like. Damp basements should also be avoided.
2. **Condensation** -- Moisture may form on the lens in the following cases...
   - •immediately after a heater has been turned on.
   - •in a steamy or very humid room.
   - •when the unit is suddenly moved from a cold environment to a warm one.

   If moisture forms inside this unit, it may not operate properly. To correct this problem, turn on the power and wait about one hour for the moisture to evaporate.
3. **Heat** -- The unit should be situated away from heat sources such as radiators and the like. It also should not be placed in temperatures less than 5°C (41°F) or greater than 35°C (95°F).

Placement

1. **Ventilation** -- The unit should be situated so that its location or position does not interfere with its proper ventilation. Allow 10 cm (4″) clearance from the rear of the unit.
2. **Foreign Material** -- Care should be taken so that objects do not fall into and liquids are not spilled into the unit. Do not subject this unit to excessive smoke, dust, mechanical vibration, or shock.
3. **Magnetism** -- The unit should be situated away from equipment or devices that generate strong magnetism.
4. **Stacking** -- Do not place heavy objects, other than system components, on top of the unit.
5. **Surface** -- Place the unit on a flat, level surface.
6. **Carts and Stands** -- The unit should be used only with a cart or stand that is recommended by the manufacturer. The unit and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the unit and cart combination to overturn.

7. **Wall or Ceiling Mounting** -- The unit should not be mounted to a wall or ceiling, unless specified in this operating instructions.

Maintenance

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution.

Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

Service

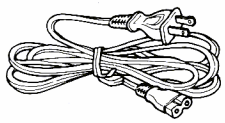
1. **Damage Requiring Service** -- The unit should be serviced by qualified service personnel when:
   (a) The AC power supply cord or the plug has been damaged; or
   (b) Objects have fallen or liquid has been spilled into the unit; or
   (c) The unit has been exposed to rain; or
   (d) The unit does not appear to operate normally or exhibits a marked change in performance; or
   (e) The unit has been dropped, or the enclosure damaged.
2. **Servicing** -- The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

CAUTION:

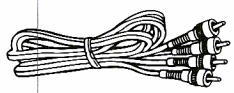
- •This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of the FCC Rules. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location and/or utilize an electrical outlet different from that used by the receiver.
- •This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
- •THIS PRODUCT UTILIZES A LASER.
  USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
  DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

Preparations

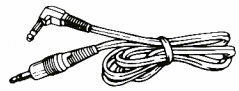
Supplied accessories



AC power supply cord
(polarized) . . . . . 1 pc.



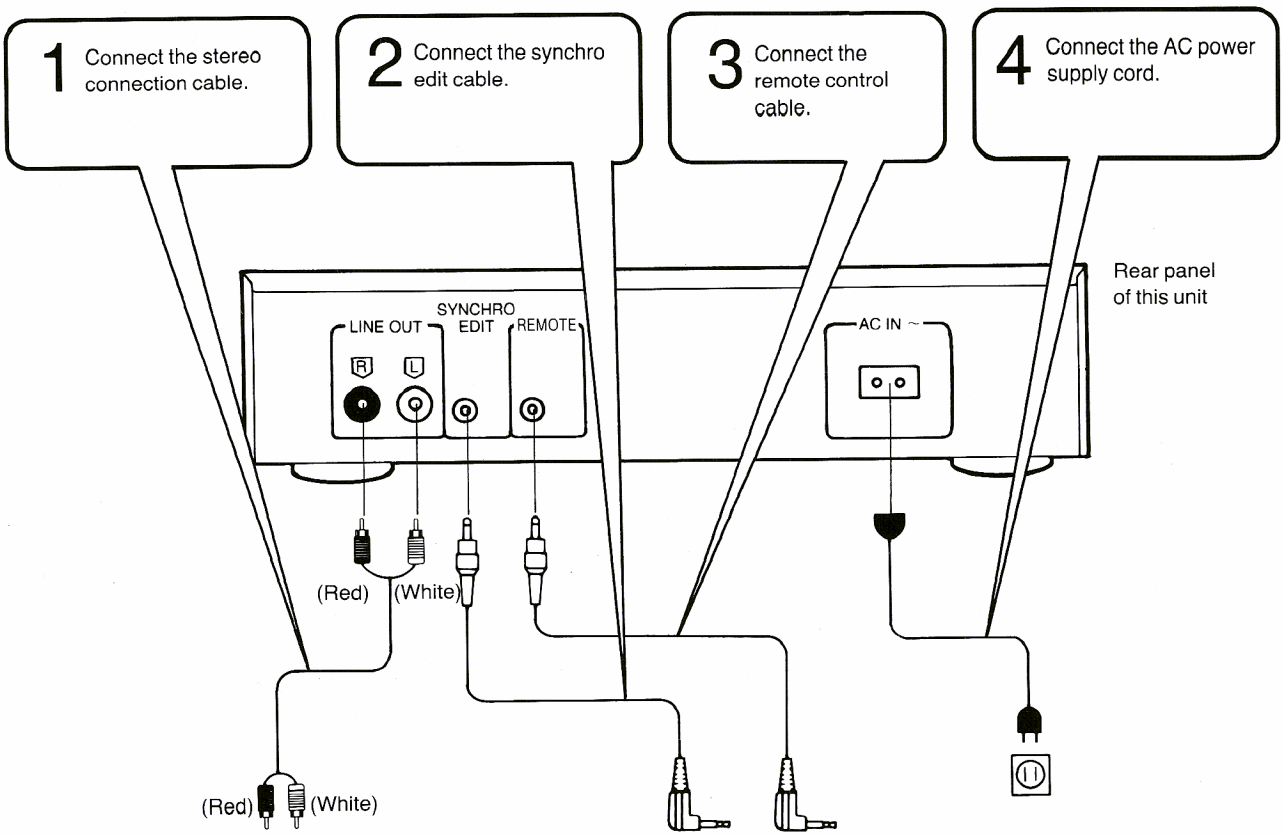
Stereo connection cable
(SJP2249-6) . . . . . 1 pc.



Remote control cable
(SJP2257T) . . . . . 1 pc.

Connections

Before making connections, be sure that the power to this unit and all other system components is first turned off.
See the operating instructions of the amplifier or the cassette deck for details.



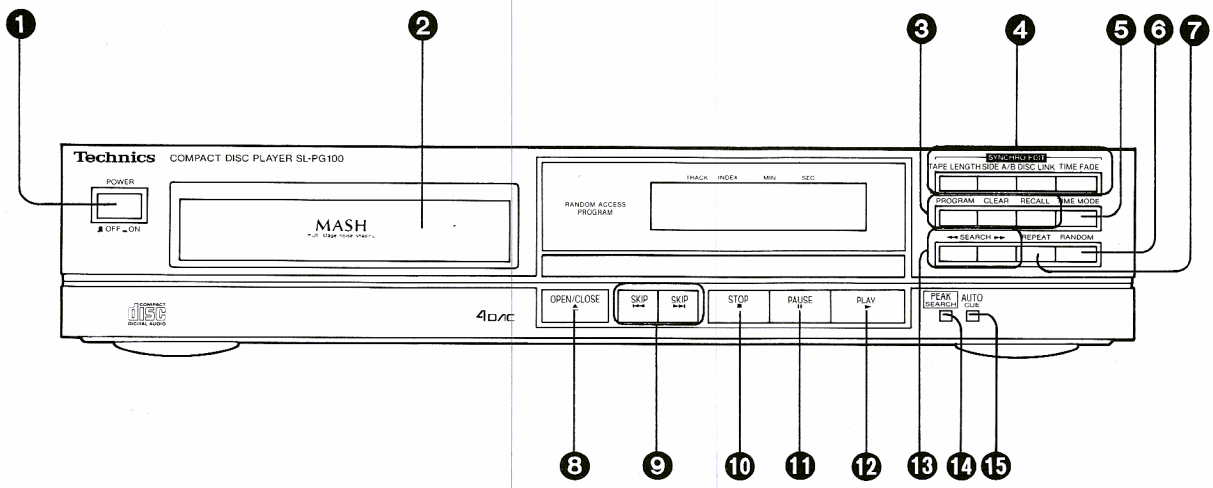
1 **Connect the stereo connection cable (included) to the "CD" or "AUX" terminals of the receiver or amplifier.**

2 **Connect the synchro edit cable (not included) the "SYNCHRO EDIT" terminal of the Technics cassette deck.**

3 **Connect the remote control cable (included) to the "REMOTE" terminal of the Technics receiver or cassette deck.**

4 **Connect the power supply cord (included) to the household AC outlet (AC 120 V/60 Hz).**

Front Panel Controls and Functions



Control section

❶ Power switch (POWER)
Press (▮_▬) to switch the power on.
Press again (▬_▮) to switch the power off.

❷ Disc holder

❸ Buttons for program function
•Program button (PROGRAM)
Pressing this button initiates the programmed play mode. You can then enter specific tracks using the skip buttons. **(See page 11.)**

•Clear button (CLEAR)
Each time this button is pressed, the last entry in the program sequence is cancelled. **(See page 13.)**

•Recall button (RECALL)
Press this button to confirm the contents of the program. Each time the button is pressed, the next entry in the program sequence is displayed. **(See page 12.)**

❹ Buttons for edit function (SYNCHRO EDIT)
•Edit tape length button (TAPE LENGTH)
When compact discs are to be recorded to tape, this button can be used to calculate the number of tracks that can be recorded on each side of the tape, depending on the length of the cassette tape used, so that as little tape as possible is wasted. **(See pages 21~27.)**

•Tape-side select button (SIDE A/B)
When recording compact discs to tape, this button is used to check the number of tracks and amount of tape left over for side A or B.

•Disc link button (DISC LINK)
This button can be used for edit recording from several discs. **(See pages 26~27.)**

•Time fade button (TIME FADE)
Pressing this button in the pause or stop mode causes the fade-out function to work at the specified time.
Pressing this button in the edit mode causes the fade-out function to work at the end of the tape when the track added exceeds the remaining time of the tape.

❺ Time mode button (TIME MODE)
Use this button to select the desired time mode. The display information will change as follows each time the button is pressed. **(See page 16.)**
① Track number and elapsed play time of the current track.
② Total remaining time on the disc.
③ Track number and remaining time of the current track.
④ Total elapsed play time on the disc.

❻ Random button (RANDOM)
Press this button to let the microcomputer make a random selection of the sequence in which tracks are played during sequential play or program play.
Press the button again to cancel the random play mode. **(See page 19.)**

❼ Repeat button (REPEAT)
Press this button to activate the repeat mode. The repeat indicator illuminates.
Press again to cancel the repeat mode. The repeat indicator will no longer illuminate. **(See page 19.)**

❽ Disc holder open/close button (⏏ OPEN/CLOSE)

❾ Skip buttons (⏮ SKIP ⏭)
These buttons are used to skip by track in the forward or reverse direction. **(See page 15.)**

❿ Stop button (■ STOP)
This button can be used to stop disc play, as well as to cancel the various play modes. **(See page 10.)**

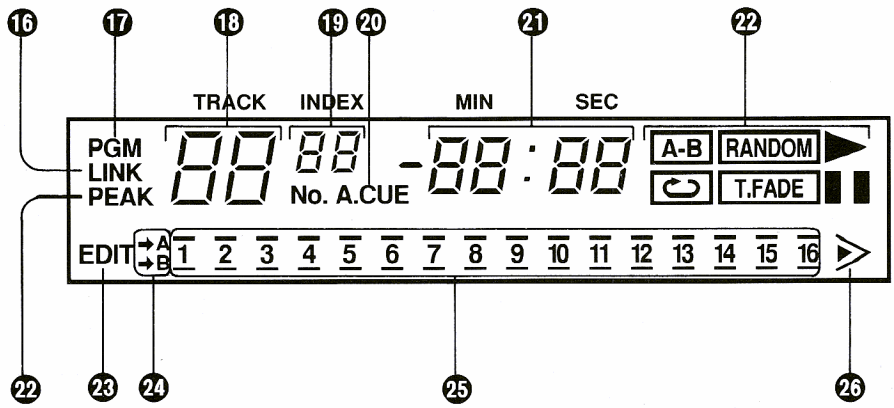
⓫ Pause button (❚❚ PAUSE)
(See page 10.)

⓬ Play button (▶ PLAY)

⓭ Search buttons (◀◀ SEARCH ▶▶)
These buttons can be used to move rapidly forward or backward on the disc during play. The search speed is slow when the button is first pressed and becomes faster if the button is pressed and held continuously.

⑭ Peak level search button (PEAK SEARCH)
Pressing this button enables the unit to search for the "peak signal" locations in tracks on a disc so as to adjust the suitable recording level on the cassette deck.

⑮ Auto cue button (AUTO CUE)
Pressing this button causes the unit to stop automatically at the beginning of the next track on the disc and switch to the standby mode.



Display section

⑯ Disc link indicator (LINK)

⑰ Program indicator (PGM)
Illuminates when the unit is in the programming or program play mode.

⑱ Track number display (TRACK)
Shows the number (up to 99) of the current track.

⑲ Index/program number display (INDEX/No.)

⑳ Auto cue indicator (A. CUE)

㉑ Time display (MIN/SEC)
The display shows the following types of information when the time mode button is pressed:
① Track number and elapsed play time of the current track.
② Total remaining time on the disc.
③ Track number and remaining time of the current track.
④ Total elapsed play time on the disc.

㉒ Operation indicators
The following indicators light during their respective operations.
A-B ⟲ **PEAK:** Peak level search
⟲: Repeat play
RANDOM: Random play
T.FADE: Time fade, Fade out
▶: Play
❚❚: Pause

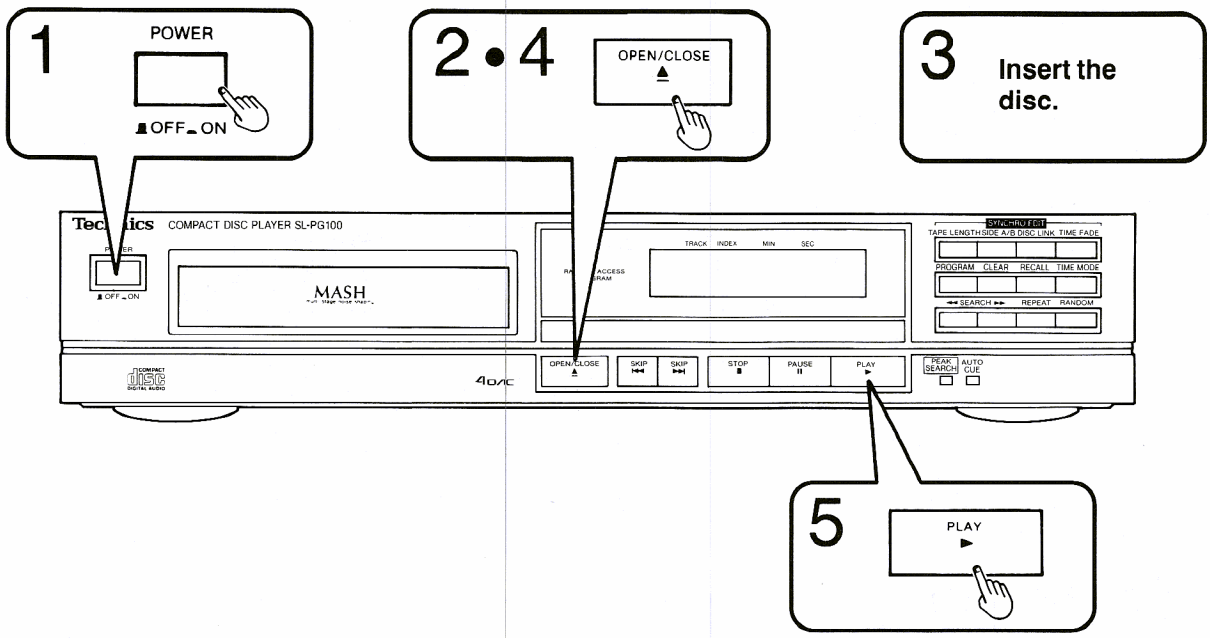
㉓ Compact disc edit indicator (EDIT)
Illuminates when the edit mode is activated.

㉔ Tape side indicator (➜A, ➜B)

㉕ Track number indicator (1–16)

㉖ "Over" mark (▷)
This indicator lights if the total number of tracks on the disc is 17 or more.

Basic Operating Procedure for Disc Play



1 **Set the power switch to ON.**

2 **Press the open/close button to open the disc holder.**

3 **Insert the disc on the disc tray.**

4 **Press the open/close button again.**

> Do not stick your finger through the hole in the middle of the disc holder. (It could get caught when the holder closes.)

5 **Press the play button.**

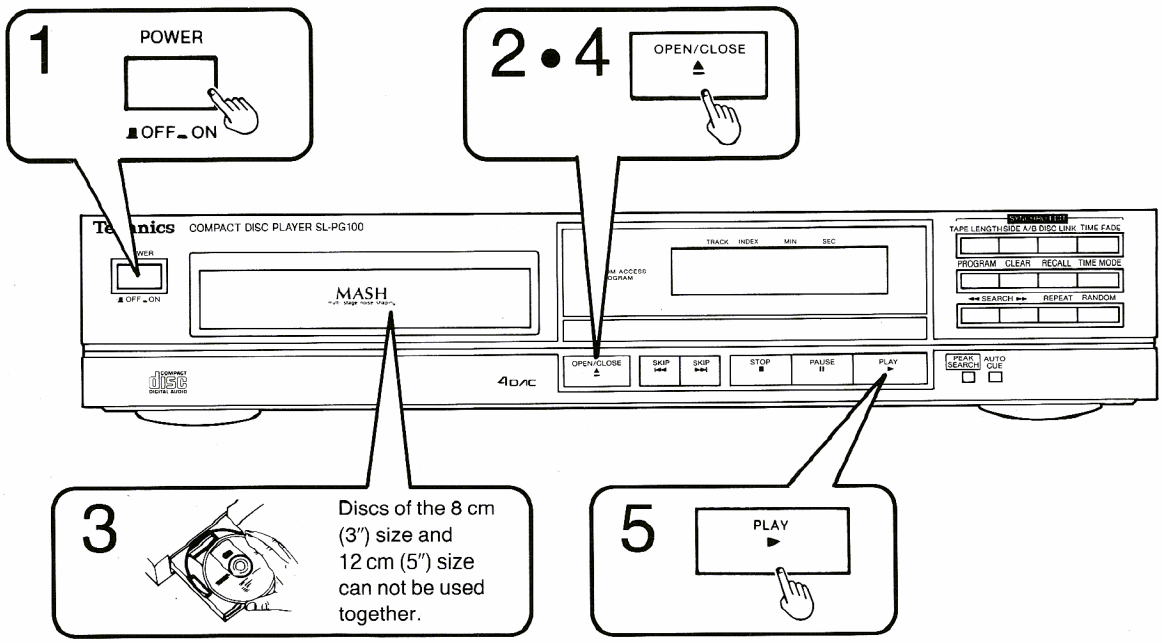
See page 9 for detailed information of the operation.

Power-on timer play function

When the power is turned on with a disc already loaded, play will commence from the first track even without pressing the play button.

Sequential Play

Sequential play refers to play of the first track of the disc to the last track of the disc.



1 Press the Power switch to turn on (■ _ ■).

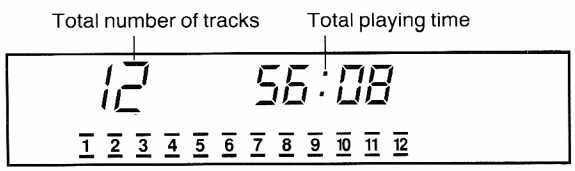
2 Press the open/close button to open disc holder.

3 Insert a disc with the label side facing upward.

Insert the disc only after the disc holder has opened all the way. If the disc is inserted too soon, it may be damaged. Do not tilt the unit while the disc holder is opening or closing since the disc could fall out of the holder.

4 Press the open/close button to close disc holder.

The total number of tracks on the disc and the total playing time are displayed.

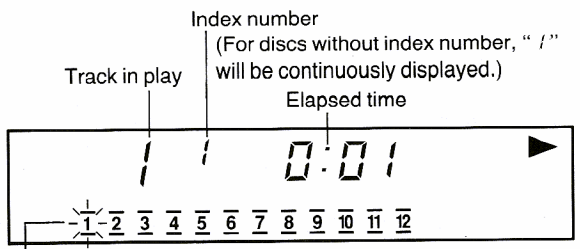


(In this example, a disc containing 12 tracks/56 minutes and 8 seconds are displayed.)

After the total number of tracks and total playing time are displayed, the player switches to the stop mode.
The total playing time displayed includes the silent sections between tracks. For this reason, it may differ by a few seconds from the playing time printed in the disc's liner notes.
This step can be skipped by pressing the play button after inserting a disc. In this case, the holder will close and play will begin directly from track 1, but the tracks and total playing time will not be displayed.

5 Press the play button to start play.

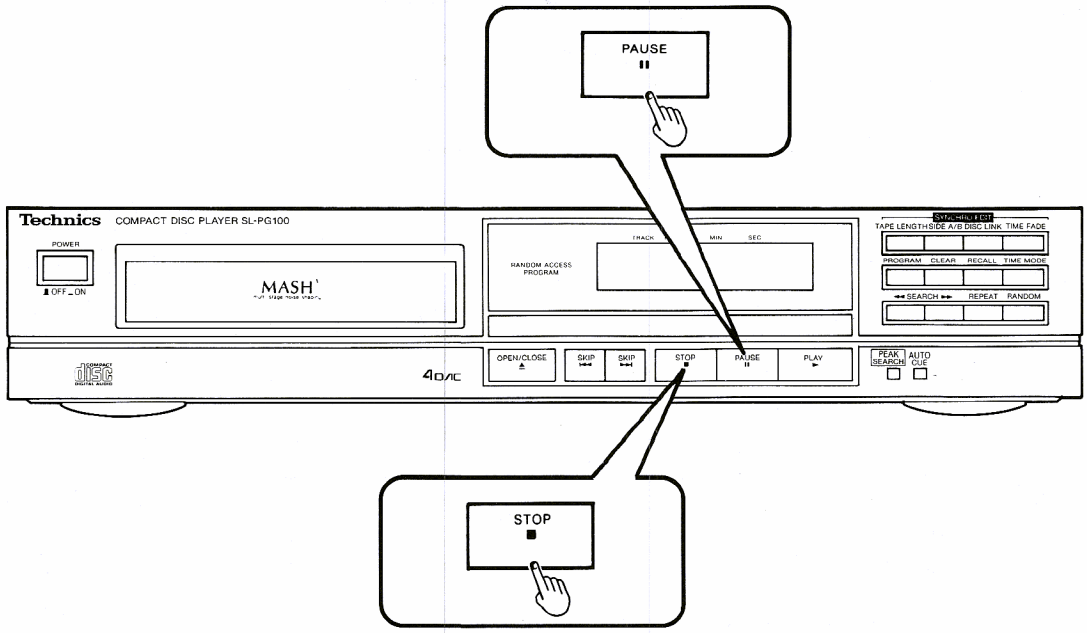
Disc play begins from the first track on the disc and the play indicator illuminates.



• The bars above and below the number of the track currently playing will flash. They will go out when play ends.

The unit stops automatically when the last track on the disc finishes playing. (The display returns to the total number of tracks and total playing time indications.)

Sequential Play (continued)



To briefly interrupt play

Press the pause button.

This unit switches to the pause mode and the pause indicator illuminates.

Play is stopped, but the pickup remains where it was at the time when the pause button was pressed. The disc rotates while the unit is in the pause mode.

Press the play button to resume play.

Pickup:
The pickup is a laser device that reads the information on the disc surface. The pickup moves across the disc as the disc is played, but it is not visible from outside the cabinet.

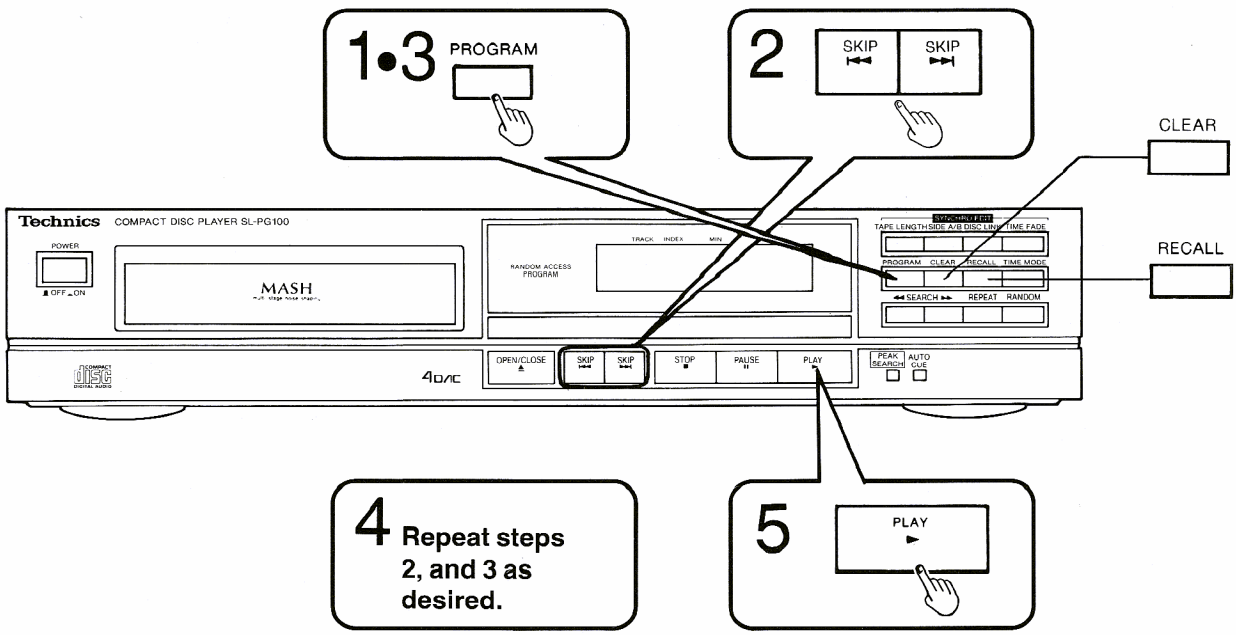
To stop play

Press the stop button.

The pickup will return to the beginning of the first track and the display will show the total number of tracks and the total playing time of the disc. (Some play modes will be cancelled.)

Program Play

This function allows you to program up to 20 tracks on the disc in any order you choose.

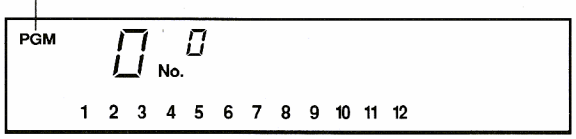


To enter the program

1 Press the program button.

The play mode will then change from sequential play to program play.

Program indicator



2 Press the skip buttons to select the track number.

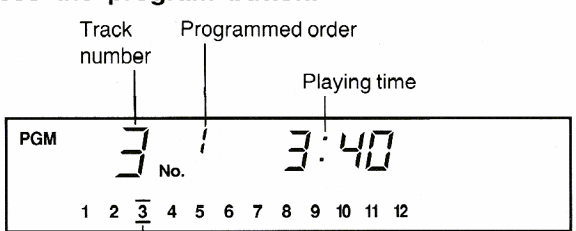
For example: To select the 3rd track, press the skip (▶▶|) button 3 times.

3 Press the program button.

Track number

Programmed order

Playing time



The bars above and below the number 3 illuminate, indicating that track has been programmed.
After a track has been played the bars go out.

4 Repeat steps 2 and 3 until the desired program is completed.

If the total playing time exceeds 99 minutes and 59 seconds or the track number specified is 21 (or higher), the display reads "--:--".

When the 21st track has been programmed, "-F" (full) appears on the display, indicating that no more tracks can be added to the programmed sequence.

Track numbers not actually on the disc can not be programmed.

5 Press the play button to start play.

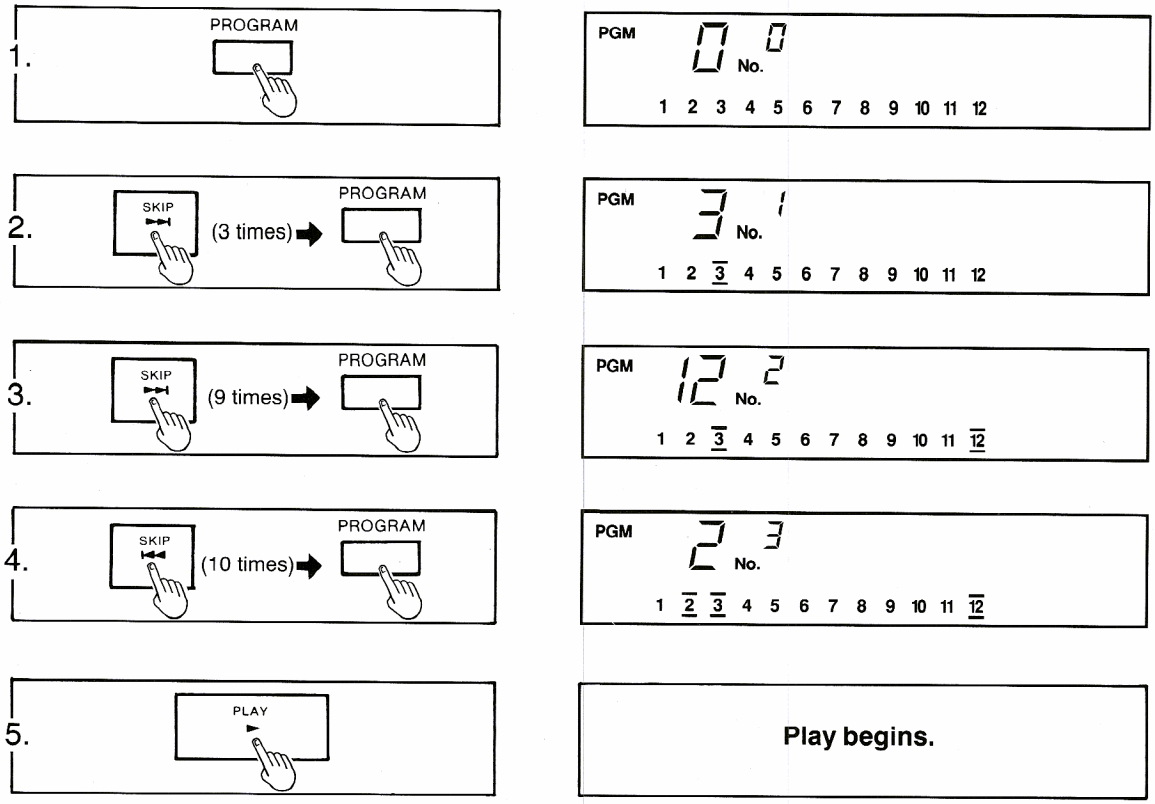
The programmed sequence is played beginning from the first track you entered.

The player will stop automatically when the last programmed track has been played.

Program Play (continued)

example:

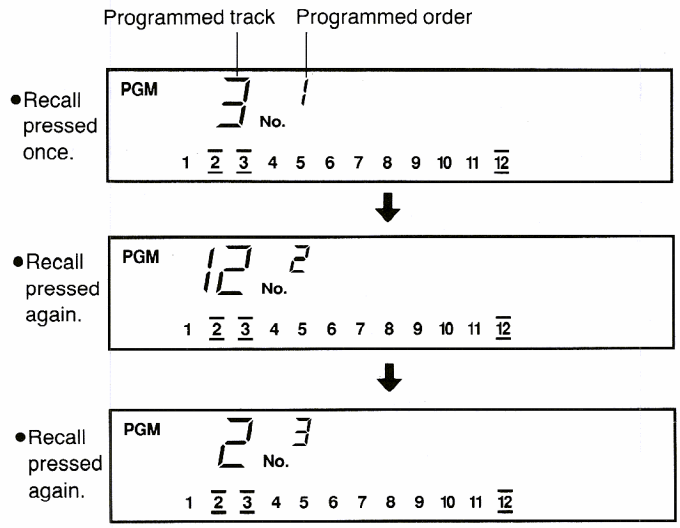
In the following illustration, track 3, 12, and 2 are to be played back in that order. (The disc used in this example contains 12 tracks).



To confirm the program

Press the recall button.

Each time the recall button is pressed, the next track in the program sequence is displayed.
When 4 seconds have elapsed after releasing the button, the display returns to its original state.



To clear programmed tracks

Press the clear button in the stop mode.

Each time the clear button is pressed, the last track in the programmed sequence will be cancelled.
For example, if you program the sequence: track 3, track 12, track 2, pressing the clear button once will cancel track 2.
Pressing the clear button again will cancel track 12, etc.

To clear programmed tracks during program play

1 **Press the recall button.**
Press the recall button continuously until the display shows the number of the track to be cancelled.

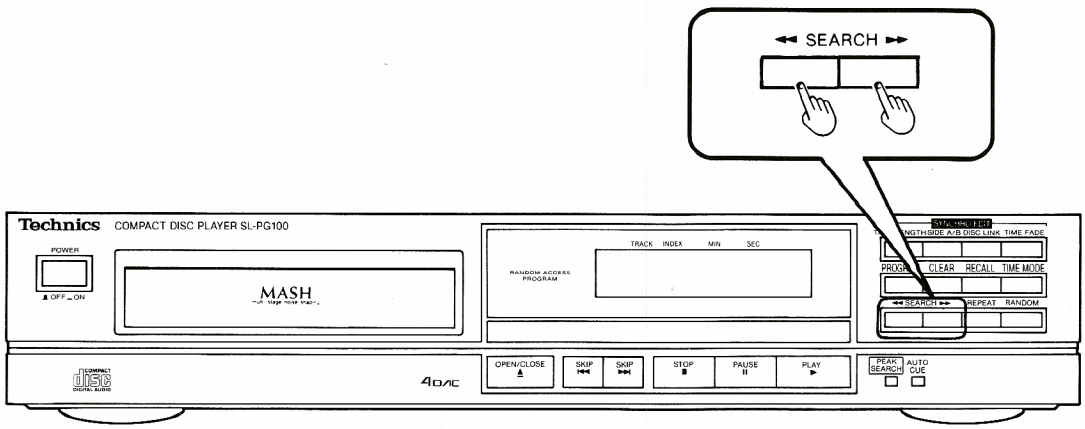
2 **Press the clear button.**
Only the track number displayed is cancelled.

To cancel program play

Press the program button.

You can also cancel program play by pressing the stop button in the stop mode.

Special Features



Search play (To search forward or backward)

While watching the track and time displays, press and hold one of the search buttons in the play mode. Release the button when the desired point has been reached.

►► Pickup moves forward.

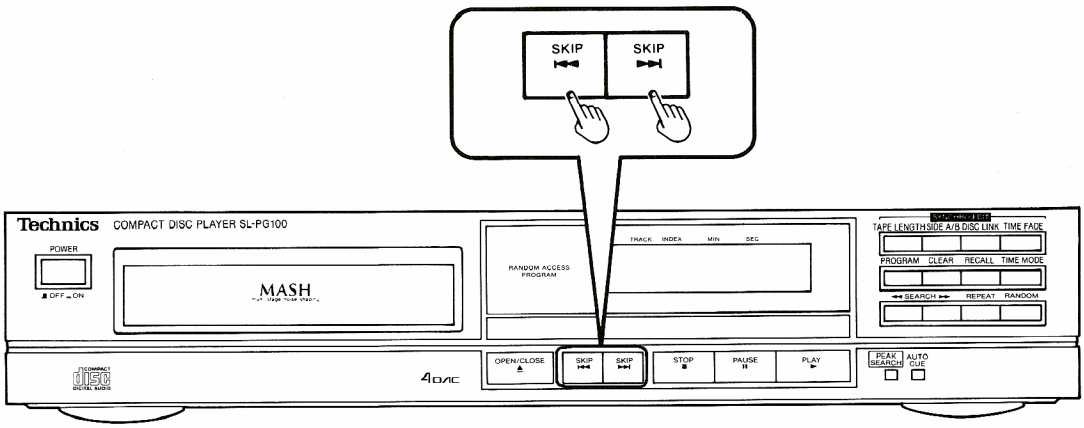
◄◄ Pickup moves backward.

The pickup moves slowly at first and then rapidly if the button is held down for more than about three seconds.
The sound level is decreased by 12 dB (¼) compared with the normal level.
In the pause mode no sound is heard; the pickup remains at the point where the button is released.

In the sequential play mode:
The pickup moves forward or backward within the disc.

In the program play mode:
The pickup moves forward or backward within the current selection track.

In the random play mode:
The pickup moves forward or backward within the current track.



Skip play (To skip tracks)

Press the forward or backward skip button momentarily until the desired track has been located.

SKIP Pickup skips forward.

SKIP Pickup skips backward.

In the sequential play mode:

SKIP The pickup skips to the beginning of the next track.

SKIP The pickup skips to the beginning of the current track if tapped one time. If pressed again quickly, the pickup skips to the beginning of the previous track.
Remember that for backward skip, the current track is included in the count.

In the program play mode:

SKIP The pickup skips to the beginning of the next program selection.

SKIP The pickup skips to the beginning of the current program selection.

In the random play mode:

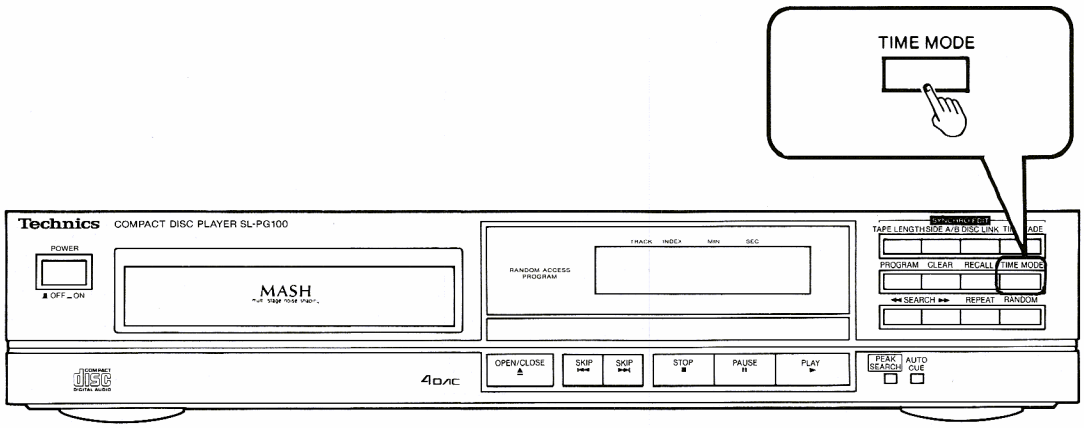
SKIP The pickup skips to the beginning of a random track.

SKIP The pickup skips to the beginning of the current track.

You can skip tracks when the unit is in the stop mode. Specify the track number and press the play button.

You can also skip tracks when the unit is in the pause mode. The unit skips to the track selected and remains in the pause mode.

Special Features (continued)



Time mode selection

Press the time mode button.
Each time the time mode select button is pressed during play or when the unit is in the pause mode, the display changes as follows.

Track number and elapsed play time of the current track.

❶ 1 ' 0:01
1 2 3 4 5 6 7 8 9 10 11 12

Total remaining time on the disc.

❷ -56:04
1 2 3 4 5 6 7 8 9 10 11 12

Track number and remaining time of the current track.

❸ 1 - 1:38
1 2 3 4 5 6 7 8 9 10 11 12

Total elapsed play time on the disc.

❹ 0:03
1 2 3 4 5 6 7 8 9 10 11 12

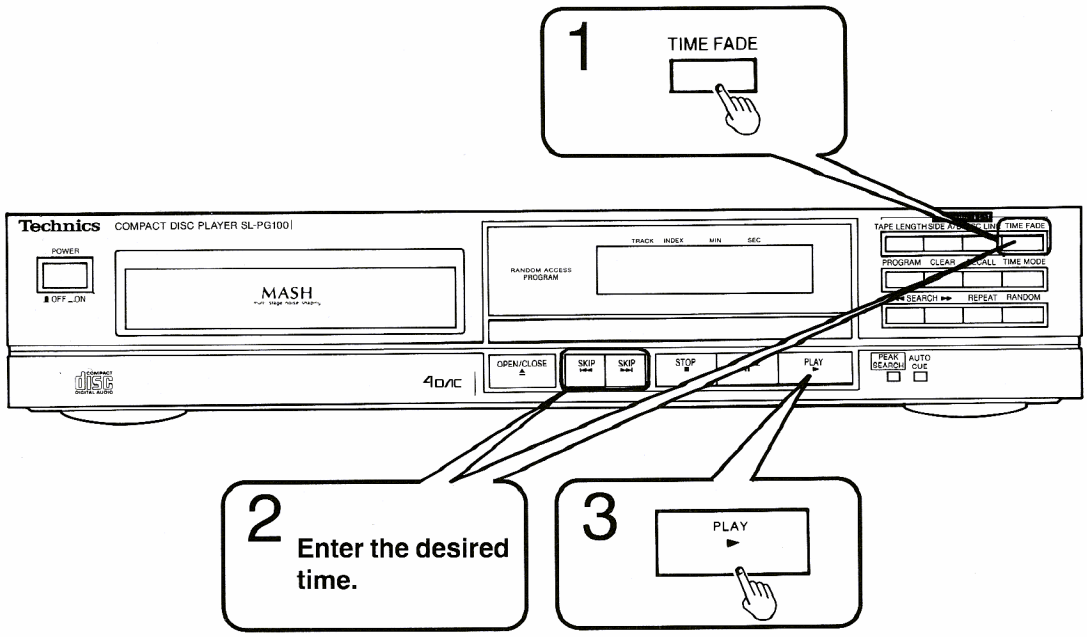
In all play modes:
During play of track 21 or greater, the "---:--" indication will be shown when display ❸ is viewed.

In the program play mode:
The total remaining time on disc (display ❷) and the total elapsed time of the tracks in the programmed sequence (display ❹) are shown.

In the random play mode:
The display ❷ and ❹ will not be shown.

In the time fade mode:
The remaining time till the fade-out is viewed, between the displays ❸ and ❹.

In the edit mode:
The tape side (A or B) on which the recording is currently being made and tape travel time will be shown when display ❹ is viewed.



Time fade

The time fade function allows the unit to finish the play with fade-out. You can specify the time (from 5 sec. to 99 min. 59 sec.) when the fade-out of 5 seconds is finished.

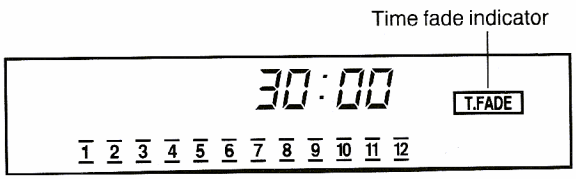
1 Press the time fade button in the pause or stop mode.

The "--:--" indication will be shown on the display panel.

2 Press the skip buttons and the time fade button to enter the desired time.

For example: If you want the fade-out to be finished 30 minutes later, follow the procedure described as bellows.

1) Keep pressing the skip button (▶▶|) until the display shows "30".
   Pressing the skip button (|◀◀) starts the countdown from 99.
2) Press the time fade button to enter "30".
3) Press the skip button (▶▶|) to specify " 00 ".
   Pressing the skip button (|◀◀) starts the countdown from 59.
4) Press the time fade button to enter "00".
   The time fade indicator on the display panel illuminates.



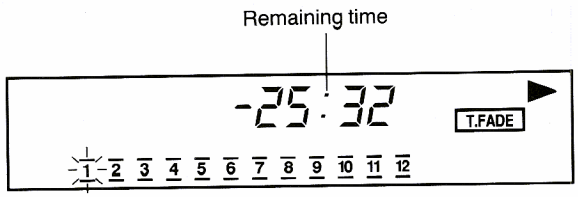
If you want to change the time while entering, press the clear button to cancel it.

3 Press the play button.

The fade-out begins 5 seconds before the specified time. The time fade indicator flashes on and off.

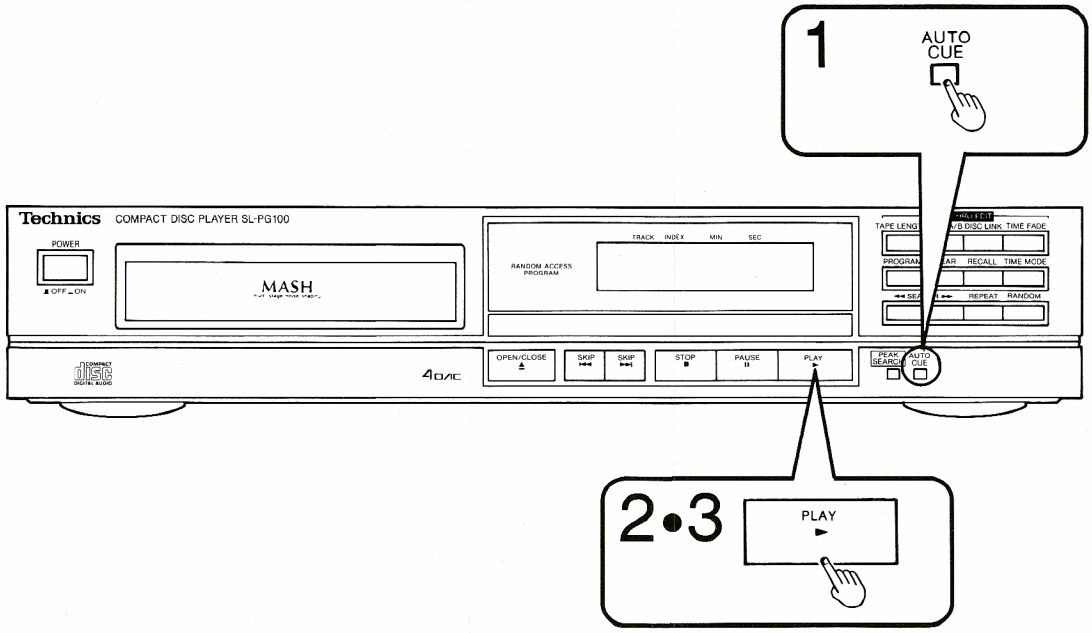
After the fade-out is finished, the unit goes into the pause mode. The time fade indicator goes out.

The remaining time till the fade-out can be additionally displayed on this mode only. It will appear after the remaining time in track being played when the time mode select button is pressed three times.



When the disc is scratched or dirty, the time fade function may not be operated properly.

Special Features (continued)



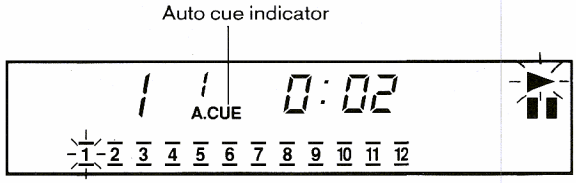
Automatic cueing

At the beginning of each track on most discs, a silent interval of about one second is recorded. Therefore, when play is started from 0 min. 00 sec, music is not heard immediately.
When the auto cue function is activated, the unit automatically detects the beginning of the music on each track and then switches to standby mode.
When play is started from this point (by pressing the play button), music is heard immediately.

1 Press the auto cue button.
The auto cue indicator on the display panel illuminates.

2 Press the play button.
The unit will switch to standby at the beginning of the track.

If the auto cue button is pressed during play, this function is activated at the beginning of the next track.



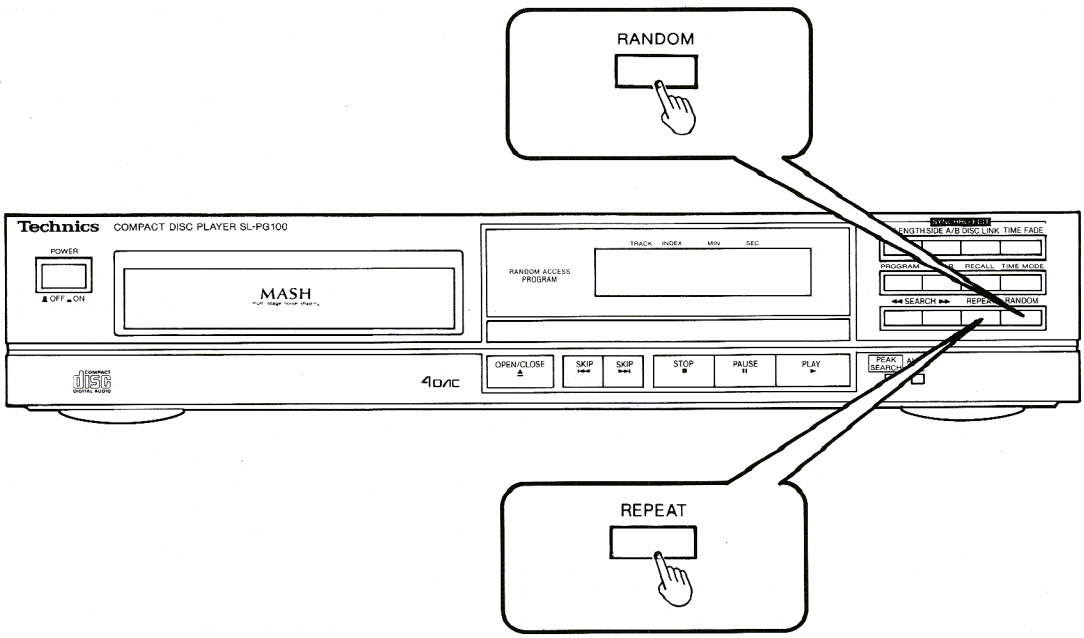
3 To start disc play, press the play button.
In this mode, the unit will switch to standby at the beginning of each track. It is therefore necessary to press the play button to resume play at the beginning of every track.

The auto cue function may not function at the beginning of the tune if a selection begins with a very soft passage or if there is a lot of background noise.

This function can also be used during program play.
The unit will then switch to standby at the beginning of each programmed track.

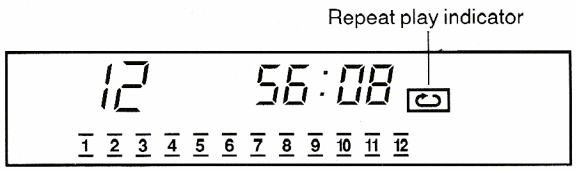
Press the auto cue button again when not using this function.

The auto cue indicator will no longer illuminate.



Repeat play

Press the repeat button before or during play.
The repeat indicator will illuminate to show that the repeat mode has been selected.



Repeat play continues until this mode is deactivated.
[The above illustration shows that the repeat button has been pressed before play (in the stop mode).]

In the sequential play mode:
Play will continue to the last track from the point where the repeat button was pressed. Then all tracks will be played repeatedly starting from the first track.

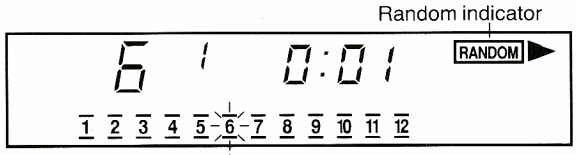
In the program play mode:
The current track and the remaining programmed selections will be played in the programmed sequence. Then all programmed selections (the entire program) will be played repeatedly in the programmed sequence.

To cancel the repeat mode press the repeat button again. The repeat indicator will no longer illuminate.

Random play

The microcomputer will automatically select the sequence in which selections will be played, in the sequential or program play mode.

Press the random button.
The random indicator will illuminate and random play will start.



The bars above and below the number of the track in play will flash. They go out when play finishes.

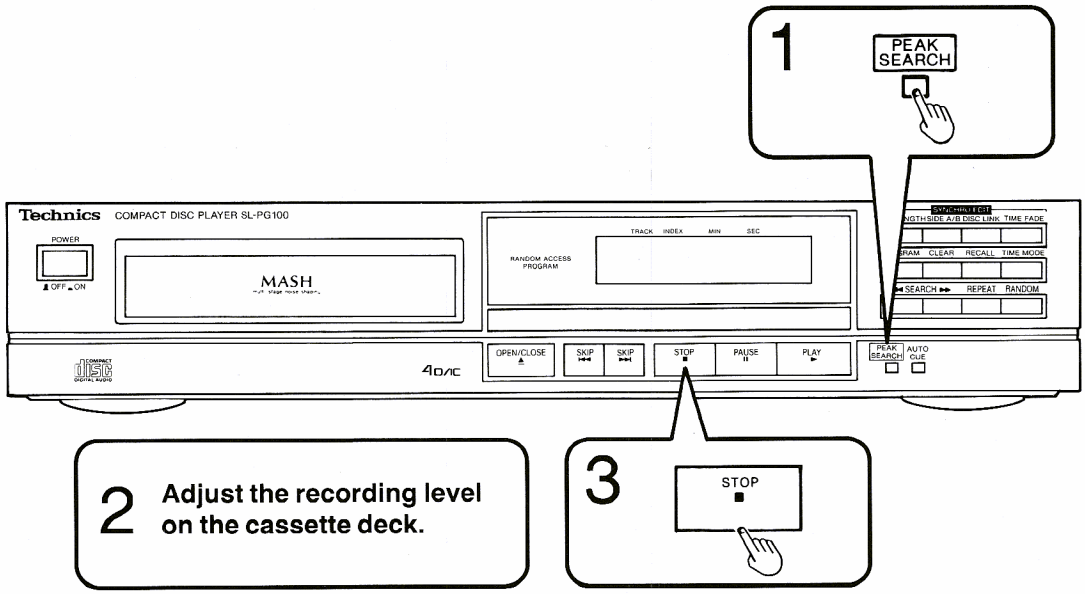
The unit stops automatically when the last random selection finishes playing, at which time the random play mode is released.

In the sequential play mode:
Tracks will be randomly selected and played.

In the program play mode:
A random selection, from among the programmed tracks, will be selected.
After all selections have been played exclusively, play will stop and the program will be retained in the unit's memory.
To play the entire program at random again, press the random button.

Recording from Compact Discs

The "peak level search function" on this unit works by having the laser pickup read equal intervals of the disc from the innermost tracks out to the outer edge. The interval with the highest peak level is then chosen.
For this reason, depending on the reading position, the peak level obtained may differ slightly from the actual peak level.
However, as there are many peak points on the disc and the peak level search time is only a small fraction of the total playing time of the disc, the discrepancy is only a small one and should not pose a problem when making recordings.

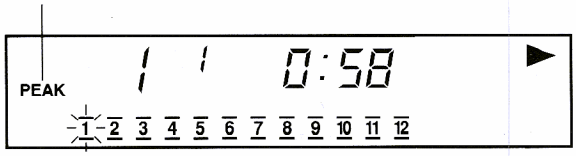


Automatic peak level search

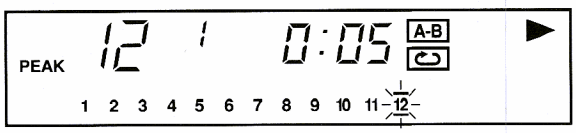
This unit is equipped with a function to automatically search for the "peak signal" location on an entire disc or only on its programmed tracks. Adjust the recording level on the cassette deck according to the peak level before recording in order to avoid a sound distortion or noises.

1 Press the peak level search button in the stop mode.
The unit searches for the "peak signal" locations in the tracks on the disc (for approx. 3 minutes).

Peak level search indicator



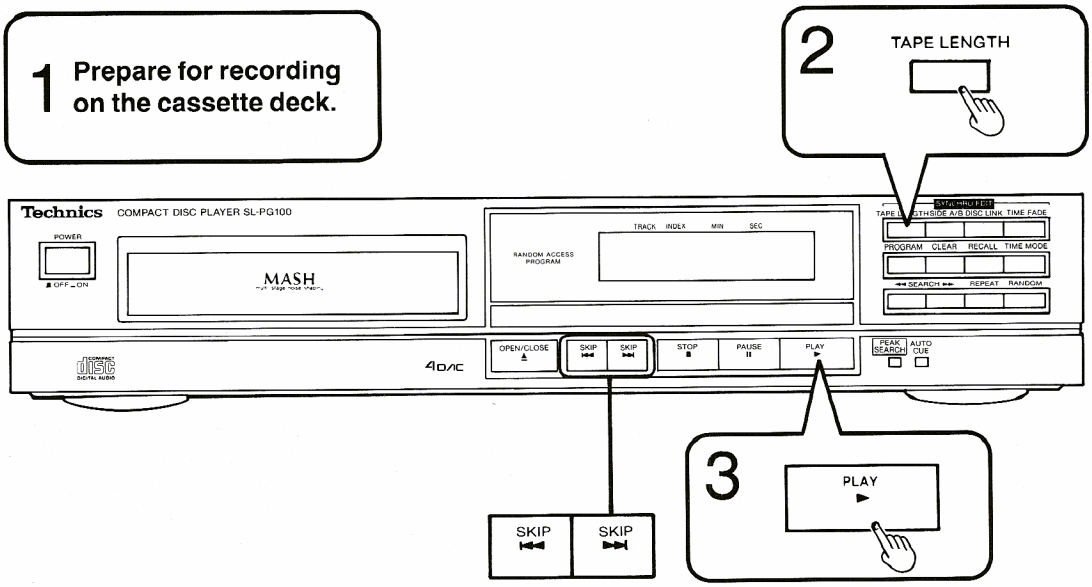
When the peak level is found, the unit repeatedly produces the sound for about 6 seconds around the peak level.



2 Set the cassette deck on the recording standby mode and adjust the recording level on the cassette deck.
(Refer to the operating instructions for the cassette deck to be used.)

3 Press the stop button to cancel the peak level search.

The edit function of this unit is used when recording from compact discs to tape. Tracks can be recorded on both sides (sides A and B) of the tape, considering the length of the tape used, so that there is no interruption of tracks at the end of one tape side.



Automatic edit

The unit automatically calculates how many tracks will fit on a given tape side and programs them for you automatically.

1 Prepare for recording on the cassette deck.

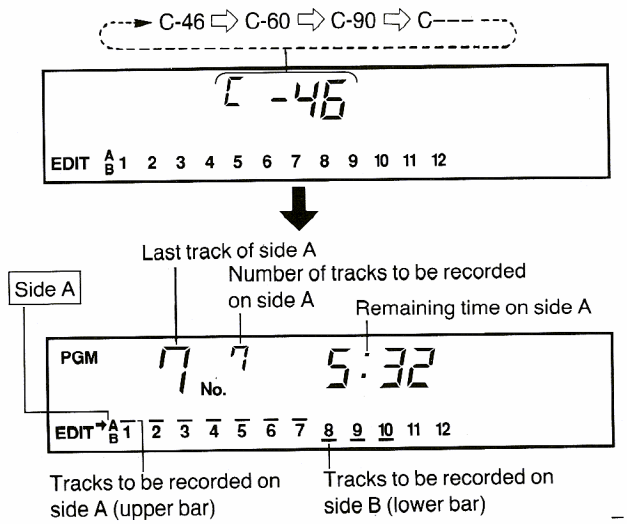
1. Insert the tape cassette into the cassette holder of the deck for the synchro edit recording operation.
2. Select the noise-reduction system and the reverse mode (⇄).
3. Check to be sure that the forward-side indicator (►) of the deck for recording is illuminated.
4. Set the cassette deck on the recording standby mode.

(Refer to the operating instructions for the cassette deck to be used.)

When you want to record programmed tracks, first program tracks in memory using the program play procedure (see page 11). Then press the edit tape length button.

2 Press the edit tape length button to select the tape length.

Each time the button is pressed the tape length indicator changes as follows. Choose the length of the tape you will use.



The maximum allowable playing time for editing is 99 minutes. When track number 21 (or higher) is specified, the edit function will not work.

3 Press the play button.

Recording will begin from side A.

When the tracks programmed for tape side A have finished playing, the unit searches for the beginning of the first track to be recorded on side B and switches to the pause mode. When the auto reverse mechanism of the cassette deck works at the end of side A and the tape switches to side B, recording for side B starts automatically.

During recording, silent gaps of approximately 3 seconds are inserted between tracks automatically (auto space function). As this function makes 3 second intervals after detecting the beginning of the next track, depending on the disc a little sound from the beginning of the next track may be recorded onto the end of the track.

Helpful hint!

You can automatically edit tracks in the desired sequence when the play time is programmed so that the tracks played will fit on both sides of the tape. For the procedure, refer to the instructions for programmed play.

Recording from Compact Discs (continued)

To select the recording time

Press the edit tape length button 4 times to select "C---". Then keep pressing the skip button(s) to specify the tape's total playing time in minutes (1–99).

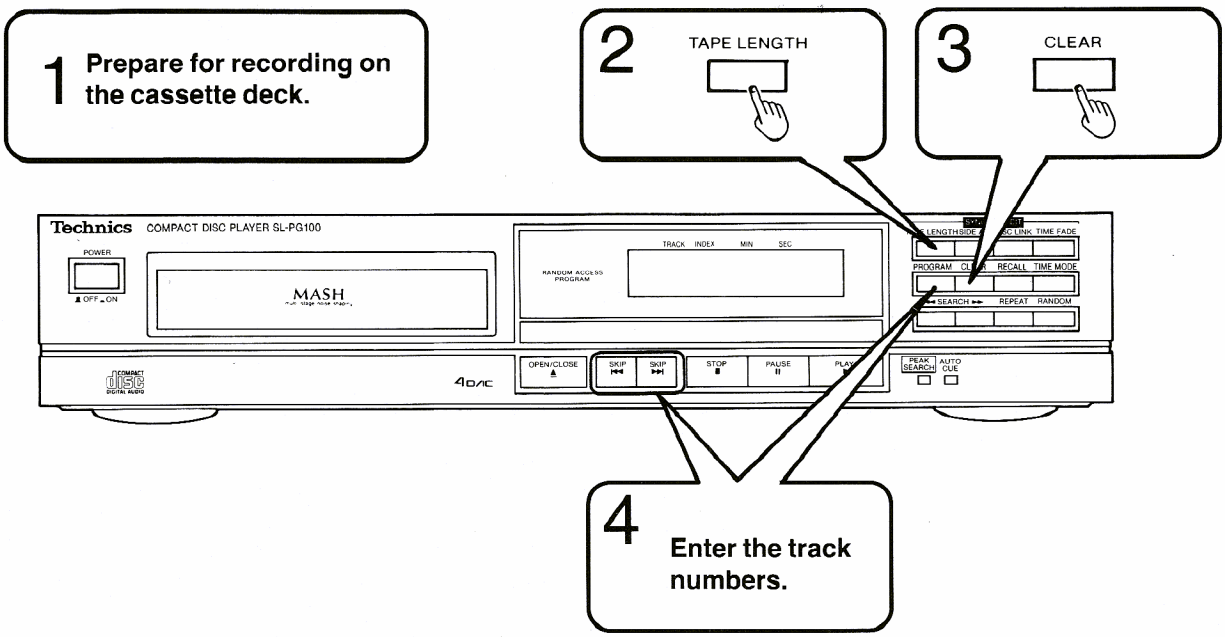
For example:
When the total recording time of the tape to be used is 52 minutes, keep pressing the skip button (▶▶|) until the display shows "C-52".

If you make a mistake, select "C---" once again and enter the correct tape length.

For cassette decks with no synchro edit terminal

Press the play button of the cassette deck at the same time as pressing the play button of the CD player to start recording.

When the recording for side A is finished, the CD player goes into the pause mode. Press the play button of the CD player to start recording for side B as soon as the tape switches to side B.
When using the link function, be sure to stop the tape running after the recording of the first disc is completed.



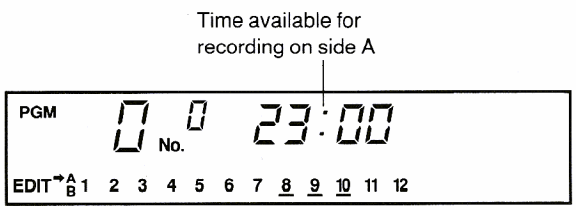
Manual editing

During manual editing, the remaining amount of time available for recording is automatically calculated and displayed after each track to be recorded is programmed.
This makes it possible to select the tracks that most nearly match the tape length (remaining time on the tape).

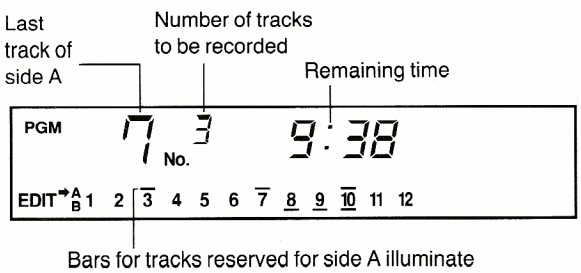
1 Prepare for recording on the cassette deck.
(See step 1 on page 21 for details.)

2 Press the edit tape length button to select the length (C-46, C-60, C-90 or C---) of the tape to be used for recording.
The automatic editing functions and the tracks are programmed on the both tape side A and B.
Then you can perform the clearing, recalling or adding to the programmed tracks as in the program play mode.

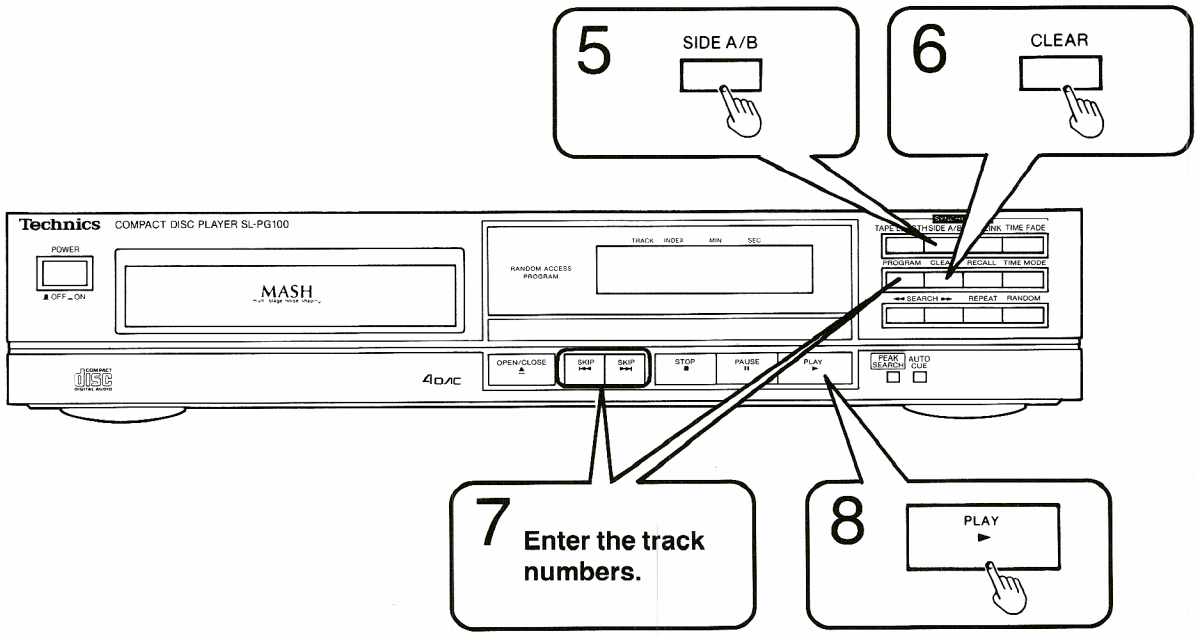
3 Press the clear button until "0" appears in the track number display.



4 Enter the desired track numbers for side A following the programming procedure.
(See page 11.)
For example, if you enter tracks 3, 10 and 7:



Recording from Compact Discs (continued)



If the programmed play time is longer than the tape length selected (indicated by "—" in front of the time display), the recording will be interrupted when the tape runs out.
To prevent this, press the clear button until the "—" indicator goes out and enter the number of a track with a playing time less than or equal to the remaining time displayed.

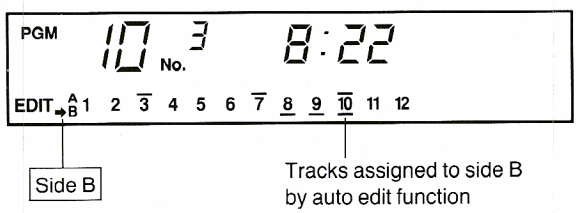
3-second silent gaps which are automatically inserted between tracks are included in the playing time.

The maximum allowable playing time for editing is 99 minutes.

More than 20 programs cannot be edited.

If track number 21 (or higher) is specified, the edit function will not work.

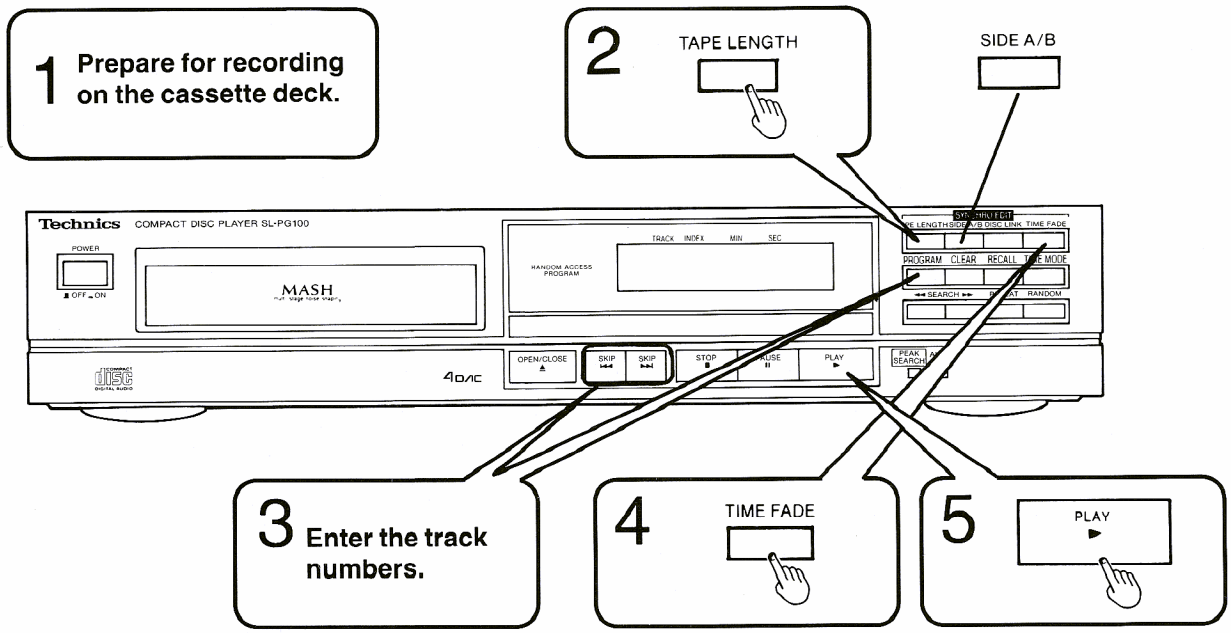
5 Press the tape-side select button to switch to tape side B.



6 Press the clear button until "0" appears in the track number display.

7 Enter the desired track numbers for side B following the programming procedure.
(See page 11.)

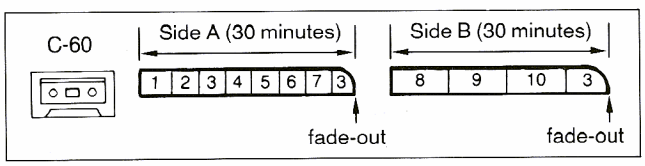
8 Press the play button.
Recording will begin from side A.



Fade out function

This function allows you to add a desired track on the remaining time on each side of the tape with the fade-out performed at the end of the tape.

For example, to add track 3 on the remaining time and to set the fade-out on each tape side.

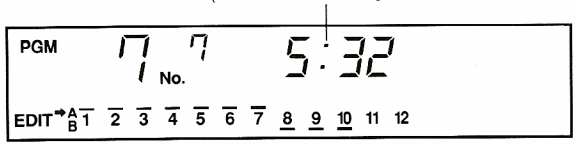


1 Prepare for recording on the cassette deck.

(See step 1 on page 21 for details.)

2 Press the edit tape length button to select the tape length.

Remaining time on side A
(Time for recording an additional track)

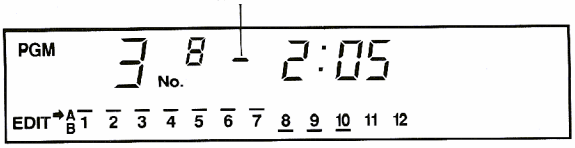


3 Enter the additional track to be recorded on the remaining time on side A (5 min. 32 sec. in this example) following the programming procedure.

(See page 11.)

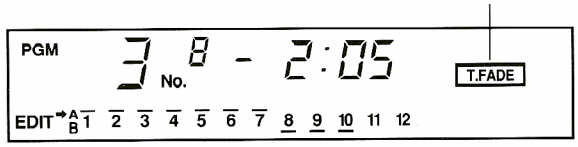
For example, if you add track 3:

Minus indication



4 Press the time fade button.

Time fade indicator



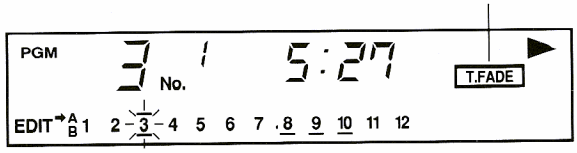
If you want to add a track on the remaining time on side B, press the tape side select button and repeat steps 3 and 4.

5 Press the play button.

Recording will begin from side A.

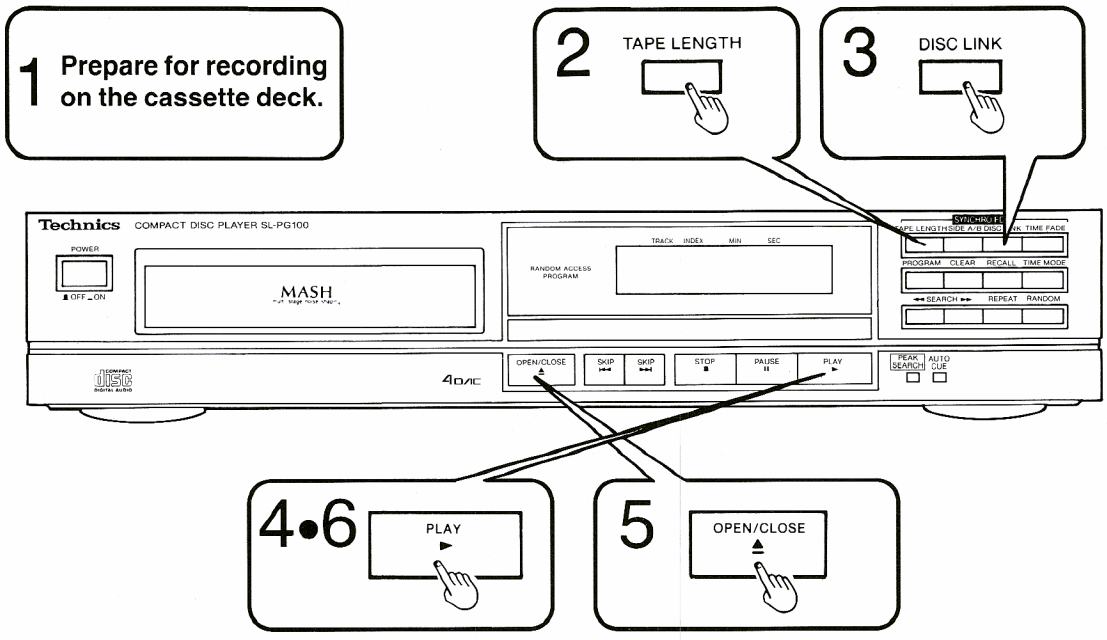
The fade-out begins 5 seconds before the end of the tape side A.

Flashes on and off



For more details, see step 3 on page 21.

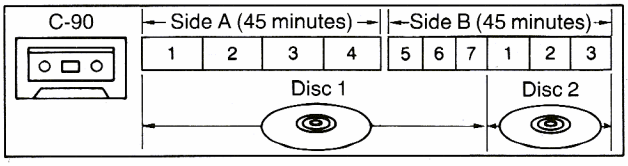
Recording from Compact Discs (continued)



Link function

This function allows you to record tracks from multiple discs, keeping the total playing time for all discs in memory.

For example, to record a 60 minute disc on a 90 minute tape and to record another disc in the space remaining on the tape:

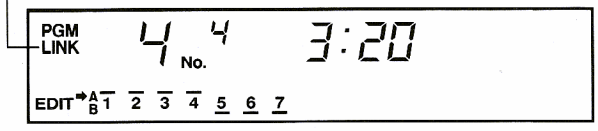


1 Prepare for recording on the cassette deck.
(See step 1 on page 21 for details.)

2 Press the edit tape length button three times.
("C-90")

3 Press the disc link button.

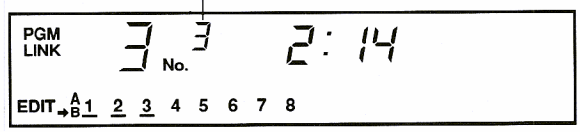
Disc link indicator



4 Press the play button.
Recording will begin from side A.
For more details, see step 3 on page 21.

5 After recording of the first disc is completed, replace the disc with another.
The disc link function works and the display shows the number of tracks to be recorded on the remaining time (30 minutes).

Number of tracks to be recorded in the space remaining on side B



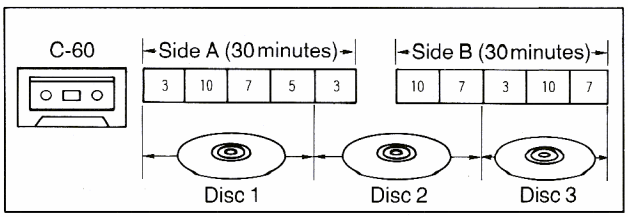
Adjust the recording level on the cassette deck. (Refer to page 20.)

6 Press the play button.

Repeating the steps 5 and 6 enables more discs to be recorded, as the remaining time of the tape allows.

Use of the link function cannot be continued when the disc is changed over near the end of side A and the remaining time on that side is shorter than the play time of the track or tracks which are to be edited.
At times like this, fast forward the tape to the beginning of side B and resume the recording.

■ For example, to record programmed tracks from 3 discs on 60 minutes tape.



Recording for disc 1

1 Prepare for recording on the cassette deck.

2 Press the edit tape length button twice.
("C-60")

3 Cancel the displayed tracks on both sides.

① CLEAR (to reset the track number display to "0")

② SIDE A/B (to switch to side B)

③ CLEAR (to reset the track number display to "0")

④ SIDE A/B (to switch back to side A)

4 Program the tracks following the programming procedure explained on page 11.
(Enter tracks 3, 10, 7 and 5.)

5 Press the disc link button.

6 Press the play button.

Recording for disc 2

1 Replace disc 1 with disc 2.

2 Cancel the displayed tracks on both sides.
(Follow steps ①~④ of procedure **3** above.)

3 Program the tracks.
(Enter track 3. ➡ SIDE A/B ➡ Enter tracks 10 and 7.)

4 Press the play button.

Recording for disc 3

1 Replace disc 2 with disc 3.

2 Cancel the displayed tracks on side B.
(Press the clear button repeatedly until all the tracks are canceled.)

3 Program the tracks. (Enter tracks 3, 10 and 7.)

4 Press the play button.

The "0" may appear on the track display when the open/close button is pressed and compact discs are exchanged. This means that continued "linking" is not possible because there is no track (on the compact disc) that will fit into the remaining available time for recording at the end of the tape.
If this happens, press the stop button to end the edit-recording.

If the cassette deck used does not have a synchro edit connector, the tape will keep running even after disc play has been completed.

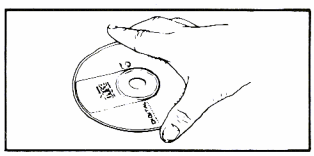
Do not forget to stop the tape or rewind it to the position where the recording was completed.
If the deck is not equipped with an auto reverse mode, change the tape over to side B when the recording on side A has been completed.

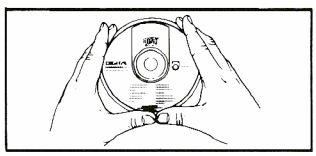
Concerning Compact Discs

Only compact discs having this mark can be used with this unit.

Handling precautions

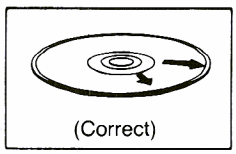
Hold compact discs by the edges so the surface is not soiled with fingerprints. Fingerprints, dirt and scratches can cause skipping and distortion.

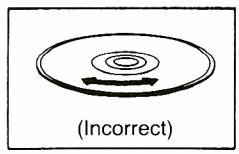




Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
If the surface is soiled, wipe gently with a soft, damp (water only) cloth.

Always move the cloth directly outward from the center fo the disc, not in a circular motion as with standard phonograph records.


(Correct)


(Incorrect)

If the disc is brought from a cold to a warm environment moisture may form on the disc. Wipe this off with a soft, dry, lint-free cloth before using the disc.

Do not write on the label side with a ball-point pen or other writing utensil.

Storage precautions

Be sure to store discs in their cases to protect them from dust, scratches and warping.
Do not place or store discs in the following places:
1) Locations exposed to direct sunlight.
2) Humid or dusty locations.
3) Locations directly exposed to a heat outlet or heating appliance.
4) In the glove compartment or rear ledge of an automobile.

Technical Specifications

■ Audio

No. of channels	2 (left and right, stereo)
Frequency response	2–20,000 Hz, ±1 dB
Output voltage	2 V (at 0 dB)
Dynamic range	92 dB
S/N ratio	100 dB
Total harmonic distortion	0.007% (1 kHz, 0 dB)
Wow and flutter	Below measurable limit
DA converter	MASH (1 bit)
Output impedance	Approx. 1 kΩ
Load impedance	More than 10 kΩ

■ Pickup

Wavelength	780 nm

■ General

Power supply	AC 60 Hz, 120 V
Power consumption	14 W
Dimensions (W×H×D)	430×102.6×280.0 mm (16 15/16″×4 1/32″×11 1/32″)
Weight	3.4 kg (7.5 lb.)

Note:
Specifications are subject to change without notice.
Weight and dimensions are approximate.

MASH is a trademark of NTT.

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.
If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.
(In U.S.A. consult MSC Authorized Servicenters for detailed instructions.)

Problem	Probable cause(s)	Suggested remedy
The disc holder does not close when the open/close button is pressed.	The disc is not inserted properly.	•Insert the disc properly again.
The disc is inserted but the total number of tracks and total playing time are not displayed.	The disc is upside down.	•Check to be sure the label is facing upward.
	The disc is dirty.	•Wipe it with a soft cloth.
	The disc is scratched.	•Replace it with a new disc.
	The disc is warped.	
	The disc is not within specified standards.	•Exchange the disc for another one.
	Moisture has condensed in the unit.	•Switch ON the unit and wait about one hour before using the unit.
	Disc of the 8-cm size and 12-cm size are in the tray together.	•Take out a disc of one size or the other.
A certain MUSIC PASSAGE can't be played correctly.	The disc is dirty.	•Wipe it with a soft cloth.
	The disc is scratched.	•Replace it with a new disc.
There is noise from the tuner or disturbance on the TV screen.	Caused by high-frequency signals of this unit.	•Use this unit farther away from the tuner or TV. •If the tuner's or TV's antenna is the indoor type, use an outdoor antenna.

Product Service

Do not attempt to remove the cover(s) or repair the unit yourself. Refer servicing to qualified personnel only.

Product information

For product service, product information or assistance in product operation, refer to the servicenter directory.

Index

Auto cue button (AUTO CUE) 7
Auto cue indicator (A. CUE) 7
Automatic cueing 18
Automatic edit 21
Automatic peak level search 20

Clear button (CLEAR) 6
Compact discs 28
Compact disc edit indicator (EDIT) 7

Disc link button (DISC LINK) 6
Disc link indicator (LINK) 7

Edit tape length button (TAPE LENGTH) 6

Fade out function 25

Index/program number display (INDEX/No.) 7

Link function 26

Manual editing 23

Over mark (⏩) 7

Pause button (❚❚) 10
Peak level search button (PEAK SEARCH) 7
Program play 11
Program button (PROGRAM) 6
Program indicator (PGM) 7

Random button 6
Random indicator (RANDOM) 7
Random play 19
Recall button (RECALL) 6
Repeat button (REPEAT) 6
Repeat indicator ( ) 7
Repeat play 19

Search button (◀◀ ▶▶) 6
Search play 14
Sequential play 9
Skip button (⏮ ▶▶⏭) 6
Skip play 15

Tape side indicator (➡ A, ➡ B) 7
Tape-side select button (TAPE SIDE A/B) 6
Time display (MIN, SEC) 7
Time fade 17
Time fade button (TIME FADE) 6
Time fade indicator (T. FADE) 7
Time mode button (TIME MODE) 6
Time mode selection 16
Track number display (TRACK) 7
Track number indicator (1–16) 7

Panasonic Company, Division of
Matsushita Electric Corporation of America
One Panasonic Way
Secaucus, New Jersey 07094

Panasonic Sales Company, Division of
Matsushita Electric of Puerto Rico Inc.
San Gabriel Industrial Park
65th Infantry Ave. Km. 9.5
Carolina, P.R. 00630

Matsushita Electric of Canada Limited
5770 Ambler Drive, Mississauga,
Ontario L4W 2T3

RQT0910-1P
F0191K2021

Printed in Japan